

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Cynthia M. Merkin

Assignee: Dell Products, L.P.

Title: Redundant Source Event Log

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Examiner: Ji-Yong D. Chung

Group Art Unit: 2152

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Austin, Texas
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COMMISSIONER FOR PATENTS
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**PRE-APPEAL BRIEF REQUEST FOR REVIEW
AND STATEMENT OF REASONS**

Dear Sir:

Applicant requests review of the Final Rejection in the above-identified application. No amendments are being filed with the request. This request is being filed with a Notice of Appeal. The following sets forth a succinct, concise, and focused set of arguments for which the review is being requested.

CLAIM STATUS

Claims 1, 3 – 17, and 22 - 32 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kosugi et al., U.S. Publication No. 20010044841 (Kosugi). Claims 2, 18, 19 and 21 stand rejected under Kosugi, in view of Davis, U.S. Publication No. 20030070115 (Davis). These rejections are respectfully traversed.

REMARKS

The present invention generally relates to a method for accessing and writing event data to a log on failure of a computer system that is independent of the computer system's operating system. In the method, if it was determined that the BIOS program was not able to write the data

to the event log, e.g., when the BIOS program encounters a subsequent failure such as an occurrence of a second critical event, then the system controller is configured to respond to the second failure by writing the data to the event log. The execution of the BIOS program may result in a second failure, thereby preventing the BIOS program from being completed.

Kosugi discloses a maintenance support apparatus and a maintenance method for automatically notifying an external remote maintenance system of the occurrence of a trouble at the time of starting a computer system until a system application is started. The maintenance support apparatus includes a server management support board and an integrated management panel which monitors a system. A start processing unit conducts start processing including a self diagnosis processing and a BOOT processing of an operating system and then starts an application when power of a computer system is turned on. A trouble notification unit controls the power of the computer system and integrally monitors a trouble of the start processing unit and a trouble during system operation. The trouble notification unit, provided as a server management support board, acquires log information stored in the start processing unit and notifies an external remote maintenance system of the log information as well as an alarm message through a dedicated network interface when the trouble notification unit detects the trouble of the start processing unit (system down).

The examiner cited to the following portion of Kosugi when setting forth that Kosugi discloses configuring a system management controller to monitor a task of writing data to an event log:

The server maintenance support board 36 notifies the ***external remote maintenance server 16*** of an alarm message indicating that system down occurs and the system log (BIOS log) at the time since the power of the system is turned on until the application is started using a network interface, i.e., if the server maintenance support board 36 is notified by the IMP panel board 34 of the system down caused by the trouble which occurs during a self diagnosis processing (POST diagnosis processing), a BOOT processing and an application start processing conducted by the baseboard 30 by means of an electronic mail and an attachment file thereof. (Kosugi, Para. 29, emphasis added.)

Kosugi does not disclose monitoring for the failure of a task to complete where the monitoring is via a system management controller that is included within the computer system in which the failure occurs.

In response to Applicants' remarks, the Examiner set forth:

The applicant has incorporated limitations related to a controller "coupled between a processor bus and a local bus," in the independent claims. Reciting passages in Kosugi (the passages which have been cited in the prior Office action) in Remarks, the applicant has highlighted the term "the remote maintenance server." The applicant argues that the system controller in the instant application is local. Apparently, the applicant is trying to distinguish the claimed subject matter based on the distinction between local and remote controllers.

Based on the Remarks, it seems that the applicant's misunderstands the rejections based on Kosugi's system. As provided in the previous Office actions, the controller 88 in Fig. 2 was cited to be "system management controller." The controller 88 is *local* to the system that is performing the logging, as is the system controller in claim 1.

Note that, Kosugi monitors any errors (which would presumably include the failure to complete a task, such as writing to a log). (Final Office Action, page 2.)

However, Applicant's position is that the system management controller is within the system for which the event data is being generated, not merely the system that is performing the logging. This feature which is claimed in each of the independent claims is not disclosed or suggested by Kosugi. Nor is this feature disclosed or suggested by any of the other references cited by the Examiner.

Davis discloses a mechanism that allows remote diagnosis and management of a computer system, regardless of whether the computer system is installed as a stand alone unit or coupled to a computer network.

More specifically, Kosugi and Davis, taken alone or in combination, do not teach or suggest a method of accessing event data describing a failure where the method includes providing a computer system with a system management controller coupled between a processor bus and a local bus, configuring the system management controller to monitor a task of writing data to an event log, the task being executed by a Basic Input Output System (BIOS) program in response to the failure, monitoring the task for completion and accessing the event data if the task fails to complete and writing the event log via the system management controller in response to accessing the event data, all as required by claim 1. Accordingly, claim 1 is allowable over Kosugi and Davis. Claims 2 - 13 depend from claim 1 and are allowable for at least this reason.

Kosugi and Davis, taken alone or in combination, do not teach or suggest a method of accessing event data on a failure of a computer system where the method includes executing a BIOS program to access the event data in response to a first failure of the computer system, triggering a watchdog timer in a system management controller of the computer system, the watchdog timer being triggered substantially concurrent to the first failure, the system management controller being coupled between a processor bus and a local bus, configuring the watchdog timer to allow the BIOS program to complete in absence of a second failure, determining whether the execution of the BIOS program caused the second failure, the second failure forcing the watchdog timer to expire, and the system management controller accessing the event data when the watchdog timer expires and writing the event log via the system management controller in response to accessing the event data, all as required by claim 14. Accordingly, claim 14 is allowable over Kosugi and Davis. Claims 15 and 16 depend from claim 14 and are allowable for at least this reason.

Kosugi and Davis, taken alone or in combination, do not teach or suggest a *computer system which includes a system controller coupled between a processor bus and a local bus* where the system controller is operable to receive an indication of the critical event and upon receipt of the indication, initiate operation of a timer, and determine whether the BIOS program has written the data to the event log within a configurable period of time defined by the timer *much less write the data to the event log if the BIOS program has not written the data to the event log*, all as required by claim 17. Accordingly, claim 17 is allowable over Kosugi and Davis.

Kosugi and Davis, taken alone or in combination, do not teach or suggest a method of responding to an event in a computer system having a processor and *a system controller where the system controller is coupled between a processor bus and a local bus* where the method includes issuing an interrupt to the processor in response to the event, detecting the interrupt at the system controller coupled to the processor, initiating a timer in the system controller upon detection of the interrupt, attempting to write data to an event log by executing a BIOS program, and the system controller determining whether the execution of the BIOS program resulted in writing data to the event log and writing data to the event log via the system management controller if the execution of the BIOS program did not result in writing data to the event log, all

as required by claim 18. Accordingly, claim 18 is allowable over Kosugi and Davis. Claim 19 depends from claim 18 and is allowable for at least this reason.

Kosugi and Davis, taken alone or in combination, do not teach or suggest a method for accessing and writing event data to a log on failure of a computer system including *a system management controller which is coupled between a processor bus and a local bus*, where the method includes monitoring a task of writing data to an event log via the system management controller, the task being executed by a Basic Input Output System (BIOS) program in response to the failure, monitoring the task for completion to determine whether the BIOS program was able to complete writing the data to the event log; accessing the event data if the task failed to complete and writing the event log via the system management controller if the task failed to complete, all as required by claim 20. Accordingly, claim 20 is allowable over Kosugi and Davis. Claims 21 - 32 depend from claim 20 and are allowable for at least this reason.

In view of the arguments set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned at 512-338-9100.

I hereby certify that this correspondence is being filed electronically with the USPTO on August 21, 2006.

/Stephen A. Terrile/

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Respectfully submitted,

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